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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|--------------------------|----------------------|------------------|
| 09/842,373 | 04/26/2001 | Floribertus C.H. Mokveld | P 280261 9036US/CNT1 | 6577 |

909 7590 05/21/2003
PILLSBURY WINTHROP, LLP
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MCLEAN, VA 22102

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| EXAMINER |
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SALVATORE, LYNDA

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| ART UNIT | PAPER NUMBER |
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1771

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/842,373 | MOKVELD ET AL. |
| | Examiner Lynda M Salvatore | Art Unit 1771 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 March 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 11-14 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 11-14 and 15-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment and accompanying remarks, Paper No. 8, has been entered. Claims 1-10 have been canceled, claims 11,12, and 14 have been amended, and claims 16-24 have been added as requested. Applicant's amendments are sufficient to overcome the claim objections set forth in sections 7 and 8 of the last Office Action. Applicant's amendments are sufficient to overcome the 112 2nd paragraph rejections set forth in sections 9-12 of the last Office Action. Applicant's arguments with respect to the rejection(s) of claim(s) 11-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Van der loo et al., WO 97/00766 in view of Kavesh et al., US 4,413,110. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, in view of Applicant's amendments, a new ground(s) of rejection is set forth herein below.

Election/Restrictions

2. Applicant's election without traverse of Group II, claims 11-14 in Paper No. 8, is acknowledged. Applicant cancelled non-elected Group I, claims 1-10.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 11 is indefinite because it is unclear to the Examiner what the Applicant means by "solvent for the solvent for the polyolefin". Does the Applicant intend to provide a shaped article comprising two different solvents or does the polyolefin fiber layer comprise a single solvent. For purposes of examination this limitation will be construed to mean a polyolefin fiber layer comprising a single solvent such as described in the specification.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 11-14 and 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der loo et al., WO 97/00766 in view of Motoooka et al., US 4,545,950.

The published PCT application to Van der loo et al., is directed to a ballistic-resistant moulded article comprising a compressed stack of single layers. The layers consist of unidirectionally oriented reinforcing fibers and about 30 weight percent of a plastic matrix material (Abstract). The moulded ballistic-resistant article preferably has a specific energy absorption rating of at least 120 J/kg/m² (Page 2, 27-28). Preferably, the reinforcing fibers are made from ultra-high molecular weight polyethylene with a denier per filament greater than or equal to 1.5, have intrinsic viscosity of at least 5 dl/g and tensile modulus of at least 1000 cN/dtex (Page 6, 16-25). Van der loo et al., further discloses that the ballistic-resistant moulded article is preferably compressed at a pressure of at least 15 MPa. at a temperature ranging from 115 to 130°C (Page 9, lines 1-5 and Page 10, lines 7-12).

Van der loo et al., fails to disclose the preparation of the polyethylene filaments, however, the patent issued to Motoooka et al., teaches stretched articles of ultrahigh molecular

weight polyethylene having high tensile strength and modulus of elasticity (Abstract). The stretched articles include filaments, strands, fibers, films, sheets, tapes and the like (Column 1, 5-10). The polyethylene composition further comprises a proportion of paraffinic wax to improve solid flowability (Column 3, 1-20). Motooka et al., further teaches that preferably the hot stretching is carried out in the presence of a solvent heat medium such as decalin, decane, or kerosene, which dissolves and removes the excess paraffinic wax (Column 9, 1-15). Motooka et al., teaches producing fibers having fine pores by removing the excess paraffinic wax such that the amount of wax remaining in the stretched article is not more than 10% by weight (Column 9, 20-30).

Therefore, motivated to provide a shaped article having high tensile strength and modulus of elasticity it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the ballistic-resistant moulded article of Van der loo et al., with the high tensile strength and modulus of elasticity polyethylene fibers taught by Motooka et al.

With regard to claim 17, the method limitation of distributing the solvent on one or more of the fiber layers before compression is not given patentable weight at this time since it is not shown to materially effect the final product structure. In other words, it is the position of the Examiner that the method of how the solvent is provided with the shaped article (i.e., solvent present in the fiber composition or applied to the surface of the fiber layers) does not patentably distinguish the final shaped article product structure over the prior art. The burden is shifted to Applicant to evidence the contrary. See MPEP 2113

With regard to the chi-parameter limitation of less than .5 present in claim 22, said limitation is presumed to be inherent to the ballistic-resistant moulded article of Van der loo et

al., and Motooka et al. Support for said presumption if found in the use of like materials such as polyethylene and non-volatile paraffin, which would result in the claimed chi-parameter property. The burden is shifted to Applicant to evidence the contrary. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed chi-parameter of less than .5 would have obviously been present once the ballistic-resistant moulded article of Van der loo et al., and Motooka et al. is provided. *In re Best*, 195 USPQ at 433

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ls
May 19, 2003


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700